



Department of Energy  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

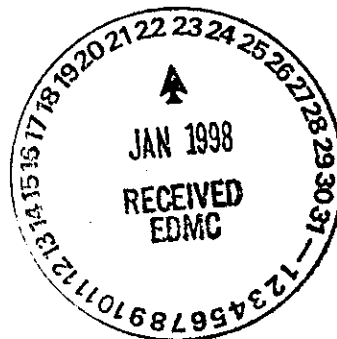
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97-EAP-810

Ms. Debra McBaugh, Section Head  
Environmental Radiation Section  
State of Washington  
Department of Health  
P.O. Box 47827  
Olympia, Washington 98504-7827

Mr. David Grant  
Aquatic Resources Division  
State of Washington  
713 East Bowers Road  
Ellensburg, Washington 98926



Dear Ms. McBaugh and Mr. Grant:

# MONTHLY EFFLUENT RADIONUCLIDES MONITORING REPORT - OCTOBER 1997

Pursuant to Section 4.8(b) of the Aquatic Lands Sewer Outfall Lease No. 20-013357, please find enclosed the 300-Area Treated Effluent Disposal Facility Monthly Effluent Radionuclide Monitoring Reports for the reporting period of September 25, through October 23, 1997, as shown in the attached table. Results of the monthly composite sample are submitted to the State of Washington Department of Health in accordance with the Exhibit C of the lease. No excursions occurred during this reporting period.

If you have any questions, please contact Alex Teimouri, of my staff, on (509) 376-6222.

Sincerely,

*James E. Rasmussen*  
James E. Rasmussen, Director  
Environmental Assurance, Permits,  
and Policy

EAP:AET

Enclosure

cc w/encl:

W. D. Adair, FDH  
E. S. Aromi, RFSH  
R. A. Danielson, DOH  
L. P. Diediker, RFSH  
D. L. Halgren, RFSH  
R. Jim, YIN  
C. G. Mattsson, FDH

T. A. Moan, EPA  
D. Powaukee, NPT  
D. R. Sherwood, EPA  
H. T. Tilden, PNNL  
J. R. Wilkinson, CTUIR  
Permit Coordinator, Ecology



ENCLOSURE  
300 Area Treated Effluent Disposal Facility  
Effluent Sampling Results

Analysis	Result <sup>(2)</sup> Bq L <sup>-1</sup> (pCi L <sup>-1</sup> )	% Counting Error	State Standard pCi L <sup>-1</sup>
GEA <sup>(1)</sup> - <sup>60</sup> Co	<0.019 (<0.52)	358%	S 50,000 <sup>(3)</sup> I 30,000
- <sup>137</sup> Cs	<-0.0947 (<-2.56)	100%	S 20,000 I 40,000
Total Alpha	<0.0218 (<0.59)	110%	15 <sup>(4)</sup>
Total Beta	0.0777 (2.1)	40%	50 <sup>(4)</sup>
Tritium	<4.44 (<120)	50%	20,000 <sup>(4)</sup>

<sup>(1)</sup>GEA: Gamma Energy Analysis

<sup>(2)</sup>Bq L<sup>-1</sup>: Becquerel per liter; pCi L<sup>-1</sup>: picoCurie per liter.  
There are 37 X 10<sup>9</sup> Bq L<sup>-1</sup>.

<sup>(3)</sup>Soluble (S) and Insoluble (I) Standards for <sup>60</sup>Co and <sup>137</sup>Cs from Washington Administrative Code 246-221-290 (Table II).

<sup>(4)</sup>Standards for total alpha, total beta, and tritium from Department of Natural Resources Aquatic Resources Lease 20-013357.